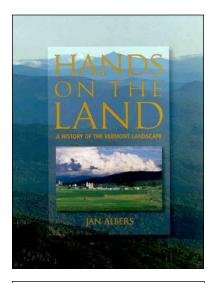
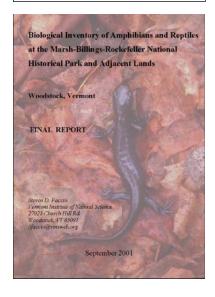


PART 7: REFERENCES

- 7.1 Works Cited
- 7.2 Description of Guiding Laws and Policies
- 7.3 Glossary



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Part 7: References

Covers from a few of the works cited in this report. (MABI)

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7.2 DESCRIPTION OF GUIDING LAWS AND POLICIES

All activities at Marsh-Billings-Rockefeller National Historical Park are governed by the 1916 Organic Act that created the National Park Service and established the Park Service's mission:

"...to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

The Park's legislative mandate is further articulated in its enabling legislation of 1992 (Public Law 102-350).

National Environmental Policy Act (NEPA) (42 USC 4321-4370): As a federal property, the Park is subject to the provisions of the NEPA, which require an evaluation of the impacts associated with federal actions. This requirement was initially met through the preparation of a Final Environmental Impact Statement (FEIS) for the Marsh-Billings-Rockefeller NHP. No major changes are proposed in this Forest Management Plan. The description of alternatives will address alternative forest management options that are within the framework of the guidance set by the General Management Plan. Impacts on natural and cultural resources are evaluated in greater detail in this document. Any future modifications to this Plan would be reviewed through the NEPA process, and where relevant to cultural resources, reviewed in accordance with Section 106 of the National Historic Preservation Act.

Council on Environmental Quality (CEQ) Regulations for Implementing NEPA (40 CFR 1500-1508): These regulations provide specific direction to federal agencies in achieving the goals of the NEPA Act. The environmental information must be available to the public and must concentrate on the issues that are truly significant to the action in question.

National Historic Preservation Act (NHPA) (16 USC 470 et seq.): In accordance with NHPA, federal agencies are required to take into account the effects of their actions on properties listed or eligible for listing on the National Register of Historic Places. The Marsh-Billings-Rockefeller NHP is listed on the National Register. Historic buildings, historic landscapes, historic circulation systems, and archeological resources all contribute to this significant designation. All undertakings with the potential to affect the historic character or potential archeological resources of the Park property require Section 106 compliance review (as mandated by the National Historic Preservation Act) to ensure protection of cultural resources. Review and consultation with the Vermont Historic Preservation Officer will be undertaken through the development of a programmatic agreement to assure compliance with Section 106 of the National

Historic Preservation Act. All actions and projects that involve ground disturbance in sensitive areas and changes to the cultural landscape implemented under the Plan will be assessed for conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

The Secretary of the Interior's Standards also provide professional standards on the preservation and protection of all cultural resources listed on or eligible for listing on the National Register of Historic Places. These standards are codified in 36 Code of Federal Regulations, Part 68, and apply to the treatment of the Park's cultural resources, including the historic Mount Tom Forest. The standards prescribe four distinct, but interrelated approaches to treatment of historic properties—preservation, rehabilitation, restoration, and reconstruction. As specified in the Park's General Management Plan, the Park will focus on rehabilitation as the general treatment approach. Rehabilitation acknowledges the need to alter or add to a historic property to meet continuing or changing uses while retaining the property's historic character.

Endangered Species Act (ESA) (16 USC 1531-1544): The Endangered Species Act is addressed as part of the NEPA compliance process. Potential impacts to endangered and other special-status species are assessed. Federal agencies are required by the Endangered Species Act of 1973 to consult with the U.S. Fish and Wildlife Service (USFWS) to ensure that their actions do not jeopardize the continued existence of any species listed as an endangered or threatened species or its critical habitat.

Clean Water Act (CWA) (33 USC 1251 et seq.): Section 404 regulates the discharge of pollutants, including dredged or fill material, into navigable waters of the U.S. through a permit system jointly administered by the U.S. Environmental Protection Agency (USEPA) and the U.S. Army Corps of Engineers (USACE). Non-point sources requirements control pesticide runoff, forestry operations, and parking lots/motor pools. Point sources require individual or group permits and must be monitored at the point at which they enter public waters, storm sewers, or natural waterways.

Clean Air Act (CAA) (42 USC 7401 et seq.): Among its varied provisions, the CAA establishes standards for air quality in regard to the pollutants generated by internal-combustion engines. These standards, known as the National Ambient Air Quality Standards (NAAQS), define the concentrations of these pollutants that are allowable in air to which the general public is exposed ("ambient air").

Archaeological Resources Protection Act (ARPA) 16 USC 470a et seq.): Ensures the protection and preservation of archeological resources on federal lands.

E.O. 12898 Federal Actions to Address Environmental Justice in Minority *Populations and Low-Income Populations:* Requires federal actions to achieve

Environmental Justice by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.

E.O. 11990: Protection of Wetlands: An overall wetlands policy for all agencies managing federal lands, sponsoring federal projects, or providing federal funds to state or local projects. It requires federal agencies to follow avoidance/mitigation/preservation procedures with public input before proposing new construction projects.

E.O. 11988 Floodplain Management: Requires all federal agencies to take action to reduce the risk of flood loss, to restore and preserve the natural and beneficial values served by floodplains, and to minimize the impact of floods on human safety, health, and welfare. Because many wetlands are located in floodplains, E.O. 11988 has the secondary effect of protecting wetlands.

E.O. 13112 Invasive Species: Requires federal agencies to prevent new invasive introductions; detect, monitor, and rapidly respond to/control current infestations in a cost-effective and environmentally sound manner; and educate the public about invasive impacts and control methods. Prohibits federal agencies from authorizing, funding, or carrying out actions that they believe are likely to cause or promote the introduction or spread of invasive species.

National Park Service Management Policies (NPS 2001): A management policy document that sets the framework and provides direction for all decisions within NPS. This document establishes the NPS policies for natural and cultural resource management.

National Park Service-77, Natural Resource Management Guidelines (NPS 1991) and DO-28, Cultural Resource Management Guidelines (NPS 1998):

These service-wide guidelines establish the basic principles and objectives for natural and cultural resource management by the NPS and define the steps for developing an ecologically sound and historically sensitive vegetation management program. They provide general guidance for NPS actions under this Plan as well as program guidance for future action plans that will address site-specific vegetation management activities.

State Permitting Requirements: Federal agencies are not subject to state or local regulations unless specified by Congress. Although forest management activities on federal lands do not fall under the jurisdiction of Vermont's comprehensive land use regulations (Act 250), the NEPA requirements (impact analysis and public involvement) being conducted through this planning process accomplish similar purposes. In addition, the forest-wide best management practices proposed in this Plan were developed to meet or exceed Vermont Acceptable Management Practices (see Appendix C).

7.3 GLOSSARY

Acceptable management practices (AMPs) – A term that is often used interchangeably with "Best Management Practices" or "BMPs" to describe state-designated guidelines developed to minimize soil erosion and other adverse impacts on water quality from forest management activities.

Adaptive management – Adaptive management has been defined as a systematic process for continually improving management policies and practices by learning from the outcomes of operational programs (Boremann et al. 1996).

Age class – The interval into which the age range of trees or forest stands are divided for classification, commonly grouped into 20-year increments.

Allowable cut – The volume of timber that may be harvested during a given period that is specified in a sustainable–yield forest plan (Helms 1998).

Archeological resource – Any material remains or physical evidence of past human life or activities of archeological interest, including record of effects of human activities on the environment that are capable of revealing scientific or humanistic information through archeological research (NPS 1998).

Aspect – The direction toward which a slope faces; exposure.

Basal area – The cross-sectional area of a single stem, including the bark, measured at breast height (4.5 feet). Basal area is often computed on a per acre basis for use in determining forest stand stocking (Helms, 1998).

Basal scar - A wound at the base of a tree's trunk where the bark has been removed by fire or some form of collision.

Best current thinking and practices – A term used in this Plan to describe the ethic of management that has informed forestry work on Mount Tom since Frederick Billings' time. Over the ensuing 135 years, each of the property's stewards drew upon current research and the expertise of forestry professionals to guide their management activities.

Best management practices – A term that is often used interchangeably with "Acceptable Management Practices" or "AMPs" to describe state-designated guidelines developed to minimize soil erosion and other adverse impacts on water quality from forest management activities.

Biodiversity – The variety of plants and animals, their interrelationships, and the biological and physical systems or ecosystems, landscapes, communities, and region in which they exist.

B-Line - In silviculture, the minimum stocking that allows for full utilization of the site (Lancaster and Leak 1978).

Blowdown - The topping of living trees by strong winds.

Board foot (bf) – A volume of wood with outside dimensions of 12 X 12 X 1 in.

Buffer strip – Vegetation bordering a special area, such as a road or stream, that often is managed differently than the surrounding landscape.

Canopy – The continuous cover of tree crowns in a forest.

Canopy decline – The thinning of a forest's canopy due to leaf loss from pathogens or stress.

Certification, third-party – A means to achieve sustainable forestry through a voluntary third party audit that meets defined standards to ensure environmentally, socially, and economically responsible management.

Character-defining feature – See defining landscape characteristics.

Citizen science - Projects in which trained volunteers or students work with researchers to answer real-world questions.

Civic engagement – Civic engagement is a continuous, dynamic conversation with the public on many levels that reinforces public commitment to the preservation of heritage resources, both cultural and natural, and strengthens public understanding of the full meaning and contemporary relevance of these resources.

Clearcut – A harvest that removes all merchantable timber in an area. Clearcuts are sometimes used as a forestry technique to encourage regeneration of species whose seedlings require full sunlight to grow well.

- Cover crop A crop whose main purpose is to benefit the soil or other crops by improving soil quality and fertility, controlling erosion, suppressing weeds, and/or controlling insects.
- Cover type A descriptive term used to group stands of similar characteristics and species composition (due to given ecological factors) by which they may be differentiated from other groups of stands (BC Ministry of Forestry 2001).
- Crop trees Trees that are designated for future harvest and managed to promote their growth.
- Cultural Landscape Inventory(CLI) The CLI is a computerized, evaluated inventory of all cultural landscapes in which NPS has or plans to acquire any legal interest. Its purpose is to identify cultural landscapes in the system and provide information on their location, historical development, character defining features, and management.
- Cultural Landscape Report(CLR) A comprehensive report used for long-term management of a cultural landscape. The overriding purpose of a CLR is to establish a preservation philosophy based on research, inventory, documentation, analysis, and evaluation which provides the foundation for making sound management decisions.
- Cultural landscape A geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values (NPS 1994).
- Decay class Qualitative assessment of stage of decay of coarse woody debris based on visual assessments of color of wood, presence/absence of twigs and branches, texture of rotten portions, and structural integrity (USDA Forest Service FIA 2004).
- **Decibels (dB)** The unit of measurement of sound level calculated by taking tem times the common logarithm of the ratio of the magnitude of the particular sound pressure to the standard reference sound pressure of 20 micropascals and its derivatives.
- **Defining landscape characteristics** Those prominent or distinctive aspects, qualities, or characteristics of the Forest that contribute significantly to its historic character. Such characteristics may include landscape patterns, vegetation, materials, and designed elements (NPS 1996).
- **Density, crown** The compactness of the crown cover of the forest, dependent upon (1) the distance apart and (2) the compactness of the individual crowns.
- **Deposition, dry** Delivery of air pollutants in the gaseous or particle phase to surfaces (NPS 2005).
- Deposition, wet Air pollution produced when acid chemicals are incorporated into rain, snow, fog, or mist (NPS 2005).
- **Disturbance** Any relatively discrete event in time that disrupts ecosystem, community, or population structure and changes resources, substrate availability, or the physical environment (Helms, 1998).
- **Dominant trees** Those trees in the forest that out-compete others in the canopy and are above them in vertical structure.
- Ecological processes The relationships between living organisms and their environment. Among these processes are natural disturbances such as periodic fire, flooding, or beaver activity; natural stresses such as disease or insects; catastrophic weather-related events such as severe storms or lightning strikes; or more subtle ongoing processes such as succession, hydrology, and nutrient cycling.
- **Ecosystem** A complex array of organisms, their natural environment, the interactions between them, the home of all living things, including humans, and the ecological processes that sustain the system.
- **Ecosystem health** A state of an ecosystem in which structure and functions allow the maintenance of the desired conditions of biological diversity, biotic integrity, and ecological processes over time.
- Ecosystem management The careful and skillful use of ecological, economic, social, and managerial principles in managing ecosystems to produce, restore, or sustain ecosystem integrity, uses, products, and services over the long term.

- Endangered species A species listed on the state or Federal endangered species list (VSA Title 10, chapter 123).

 Endangered species are those which are in danger of becoming extinct within the foreseeable future throughout all or a significant portion of their range.
- **Ethnographic Landscape** A landscape containing a variety of natural and cultural resources that associated people define as heritage resources.
- **Even-aged** A term applied to a stand in which relatively small age differences exist between individual trees. The maximum difference in age permitted in an even-aged stand is usually 10 to 20 years, although where the stand will not be harvested until it is 100 to 200 years old, larger differences, up to 25 percent of the rotation age, may be allowed.
- Exotic Not native; foreign. Those trees and plants introduced from other climates or countries.
- **Feature** The smallest element(s) of a landscape that contributes to its significance and can be the subject of a treatment intervention. Examples include a woodlot, hedge, lawn, specimen plant, meadow or open field, orchard, fence, wall, pond, earthwork, or house (NPS 1996).

Forest composition – The species of trees and other plants present in a forest.

Forest decline – The death of trees in a forest due to pathogens or stress.

Forest health – A condition in which damage and death from insects, diseases, and abiotic factors is within normal and expected limits.

Forest inventory – A set of objective sampling methods designed to quantify the spatial distribution, composition, and rates of change of forest parameters within specified levels of precision for the purposes of management.

Forest structure – The sizes and spatial distribution of a forest's trees.

Forwarder – A self-propelled (harvesting) machine, usually self-loading, that transports trees or logs by carrying them completely off the ground (Helms 1998).

Fragmentation – Division of a large forested area into smaller patches separated by areas converted to a different land use. Fragmentation is associated with the interruption of continuous natural habitat due to human and/or natural occurrences and can impact biodiversity.

- **Growth** Increase in diameter, basal area, height, and volume of individual trees or stands during a given period of time. Also known as increment.
- Habitat The environment in which an organism interacts and from which it gains its resources. Often variable in size and content, changing with the phases of an organism's life cycle.
- Hardwood Generally, one of the botanical group of trees that have broad leaves, in contrast to the needle-bearing conifers; also wood produced by broadleaved trees, regardless of texture or density. They are generally deciduous and include oak, alder, or maple (Stoddard and Stoddard, 1978).
- Harvest (1) The practice of felling and removing trees or the removal of dead or damaged trees from an area; (2) the products resulting from the harvesting activities. (BC Ministry of Forestry 2001).

Harvest, average annual – Volume of wood harvested over a given number of years divided by the number of years. **Herbivory** – The state or condition of feeding on plants.

Historical integrity – The authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during its historic or prehistoric period; the extent to which a property retains its historic appearance. According National Register of Historic Places criteria, there are seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association.

Historical significance – The meaning or value ascribed to a structure, landscape, object, or site based on the National Register of Historic Places criteria for evaluation. The quality of significance is present in resources that possess integrity and A) are associated with events that have made a significant contribution to the broad patterns of our history; B) are associated with the lives of persons significant in our past; C) embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or D) have yielded, or may be likely to yield, information important in prehistory or history.

Integrated Pest Management – The maintenance of destructive agents, such as insects, at tolerable levels by the planned use of a variety of preventative, suppressive, or regulatory tactics and strategies that are ecologically and economically efficient and socially acceptable.

Interior dependent species – Those wildlife species that depend on large, unbroken tracts of forest land for breeding and long-term survival. The term is also often used in conjunction with neotropical migratory bird species requiring large patches of fairly homogeneous habitat for population viability.

Intolerance – The incapacity of a tree to develop and grow in the shade of and in competition with other trees.

Invasive species – A species that is non-native (or alien) to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

Mast – The fruit of trees considered as food for livestock and wildlife. Hard mast is the fruit or nuts of trees such as oaks and beeches, soft mast include fruits and berries such as hawthorn, cherry, and serviceberry (Helms 1998).

Maturity – For a given species or stand, the approximate age beyond which growth declines or decay begins to increase at a rate likely to assume economic importance.

Merchantable – Trees or stands of a size and quality suitable marketing and utilization.

Meta-population – Partially isolated populations of the same species, which are able to exchange individuals

Mosaic – A landscape ecology term that describes a holistic landscape, including its biological, environmental, and cultural characteristics, and how it can be segregated into distinct components of patch, corridor, and matrix types, such as ponds, streams, forest stands, crop fields, roads, and meadows. Components of a landscape mosaic can be defined as a patch, corridor, or matrix.

National Register of Historic Places (NRHP) – The comprehensive list of districts, sites, buildings, structures, and objects of national, regional, state, and local significance in American history, architecture, archeology, engineering and culture kept by NPS under authority of the National Historic Preservation Act of 1966.

Native – A plant or animal indigenous to a particular locality.

Natural community – An assemblage of plants and animals that is found recurring across the landscape under similar environmental conditions, where natural processes, rather than human disturbances, prevail.

Net growth, average annual – The average annual net increase in the volume of trees during the period between inventories (Helms 1998).

Non-native – Not inherent or original to an area.

Overstory – (1) The crown canopy of a forest; (2) the trees that make up the crown canopy.

Patch – A landscape ecology term that describes an area of vegetation that is relatively homogeneous internally and differs from surrounding elements.

Partial overstory removal – A silvicultural technique that partial removes trees constituting the upper canopy layer of a stand to encourage the growth of trees or other vegetation in the understory.

Pathogen – Any disease-producing organism.

Period of significance – the span of time in which a property attained the significance for which it meets National Register of Historic Places criteria.

Plantation - A stand comprised primarily of trees established by planting or artificial seeding (Helms 1998).

Plantation, naturalized – A planted stand that over time has become more diverse in species composition and vertical structure because of natural regeneration.

Plantation, single-species – A planted stand of one tree species, often all of the same age.

Preservation – The act or process of applying measures to sustain the existing form, integrity, and material of a historic structure, landscape or object.

Programmatic agreement(PA) – A special type of memorandum of agreement typically developed for a large or complex project or a class of undertakings that would otherwise require numerous individual §106 actions. Procedures for developing a programmatic agreement are outlined in 3 CFR Part800. 14(b).

Pulpwood – Wood cut or prepared primarily for manufacture into wood pulp for subsequent manufacture into paper, fiber, board, or other products, depending largely on the species cut and the pulping process (Stoddard and Stoddard 1978).

Reforestation - The natural or artificial restocking of an area with forest trees (Stoddard and Stoddard 1978).

Regeneration – The process by which a forest or range is renewed by self-sown seeds, sprouts, or rhizomes; by seeds from adjacent stands; or by seeds deposited by wind, birds, or animals (Stoddard and Stoddard 1978).

Rehabilitation – The act or process of making possible an efficient compatible use for a historic structure or landscape through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural and architectural values.

Release cut – A cutting of larger individual trees that are overtopping young trees, for the purpose of freeing the young trees to permit them to make good growth.

Resilience, forest stand – The ability of an ecosystem to maintain diversity, integrity and ecological processes following disturbance (BC Ministry of Forestry 2001).

Riparian – An area of land adjacent to a stream, river, lake or wetland that contains vegetation that, due to the presence of water, is distinctly different from the vegetation of adjacent upland areas (BC Ministry of Forestry 2001).

Rotation – In even-aged silvicultural systems, the period between regeneration establishment and final harvesting. **Runoff** – surface water discharging from a drainage area.

Salvage – Logging operations specifically designed to remove damaged timber (dead or in poor condition) and yield a wood product. Often carried out following fire, insect attack or windthrow (BC Ministry of Forestry 2001).

Sapling – A usually young tree larger than a seedling but smaller than a pole (sizes vary by region and species).

Saw timber – (1) Timber stands in which trees of sawlog size make up most of the volume; (2) live trees of commercial species containing merchantable sawlogs.

Sediment - Mineral or organic matter deposited by water, ice, or air.

Seed tree – A tree that produces seed; usually trees reserved during a harvesting operation to supply seed following the harvest.

Seedling – A tree grown from seed. The term is restricted to trees smaller than saplings.

Selection, **group** – A silvicultural system designed to support or create an uneven-aged forest condition by removing trees in small groups to establish new age classes (Helms 1998).

Selection, single-tree – A silvicultural system designed to support or create an uneven-aged forest condition by removing individual trees of all age classes more or less uniformly throughout the stand (Helms 1998).

Silviculture – The art and science of managing the establishment, growth, composition, health, and quality of forests and woodlands to meet the diverse needs and values of landowners and society on a sustainable basis.

Site index – A measure of site quality; expressed as height in feet of dominant trees at least 50 years of age.

Skid – To pull logs along the ground, from the stump to the skidway or landing.

Skidder – A vehicle used to transport logs to a landing.

Slash – Branches, bark, tops, chunks, cull logs, uprooted stumps broken or uprooted trees left on the ground after logging; also large accumulation of debris after wind or fire.

Snag – A standing, dead tree from which the leaves and most of the branches have fallen, or a standing section of the stem of a tree broken off at a height of 20 ft or more. If less than 20 ft high, it is properly termed a stub.

Softwood – Cone-bearing trees with needle or scale-like leaves such as fir, spruce, and pine species (BC Ministry of Forestry 2001).

Spatial organization – A type of landscape characteristic. The three-dimensional organization of the forms and visual associations in the landscape, including the articulation of the ground, vertical, and overhead planes that define and create spaces. Examples include circulation systems, views and vistas, divisions of property, and topography (NPS 1998).

Species composition – The percentage of each recognized tree species comprising the forest type based upon the gross volume, the relative number of stems per hectare or basal area (BC Ministry of Forestry 2001).

Stand – In silviculture, a contiguous group of trees sufficiently uniform in age-class distribution, composition, and structure, and growing on a site of sufficiently uniform quality, to be a distinguishable unit (Helms 1998).

Stand, northern hardwood – A stand that is dominated by an association of hardwood species; in Vermont these include sugar maple, white ash, beech, and basswood.

Stand, mixedwood or mixed forest – A stand that includes a component of coniferous species that falls between 25-65% of the total species composition.

Standing deadwood – See snags.

Stand age – The age of a community of trees that contribute to its distinction as a feature distinguishable from the forest or other growth on adjoining areas (Stoddard and Stoddard 1978).

Stewardship – (1) an expression of a deeply held personal belief associated with a commitment to future generations; (2) an approach to conservation practice that values both nature and culture, including the imprint of people on the land.

Stock, growing – All the trees growing in a forest or in a specified part of it, usually commercial species, meeting specified standards of size, quality, and vigor, and generally expressed in terms of number or volume.

Succession – The gradual supplanting of one community of plants by another based on ecological factors (Helms 1998).

Succession, early – The state of succession shortly following the beginning of re-forestation; often includes "pioneer" species such as aspen, paper birch, and white pine.

Succession, late – The state of succession which occurs after a long period of continuous forest cover in an area; often includes species such hemlock, beech, and sugar maple.

Sustainable forest management – Management regimes applied to forest land which maintain the productive and renewal capacities as well as the genetic, species and ecological diversity of forest ecosystems (BC Ministry of Forestry 2001).

Sustained yield – As applied to a policy, method, or plan of forest management, the term implies continuous production, with the aim of achieving, at the earliest practicable time, an approximate balance between net growth and harvest.

Thinning – Cutting in an immature stand to increase its rate of growth, to foster quality growth, to improve composition, to promote sanitation, to aid in litter decomposition, to obtain greater total yield, and to recover and use material that would be otherwise lost.

Threatened species – A species listed on the state or Federal threatened species list. Threatened species are those likely to become endangered within the foreseeable future throughout all or a significant portion of their range.

Tolerance – The capacity trees to grow satisfactorily in the shade of, and in competition with, other trees (Helms 1998).

Traditional uses – Those uses of the forest that have characterized the general area in the recent past and present, including an integrated mix of timber and forest products harvesting, outdoor recreation, and recreation camps or residences.

Tree, den – A tree that contains cavities that provide cover for wildlife.

Tree, legacy – A tree that is retained on site or cultivated for its historical association or to provide biological richness.

Timber stand improvement (TSI) – An intermediate treatment made to improve the composition, structure, condition, health, and growth of even or uneven-aged stands.

Type, forest – A descriptive term used to group stands of similar character as regards composition and development due to certain ecological factors, by which they may be differentiated from other groups of stands.

Understory – That portion of the trees in a forest stand below the overstory.

Uneven-aged – A stand in which there are three or more age classes, either intimately mixed or in small groups. See also all aged.

Value-added products – Those products that have an added value due to an association with place, sustainable management, and craftsmanship.

Vernal pool – An ephemeral body of water that fills in the spring, holds water for at least 10 days, and dries up by fall some or all years and that does not contain fish; important habitat for amphibians and reptiles (Maine Forest Service 2003).

Vertical diversity – Amount of variation in canopy heights (see also vertical stand structure)

Vertical stand structure - Canopy layering as determined by an analysis of foliage height distribution (Keeton 2005).

Vigor, stand – The capacity for natural growth and survival, sometimes measured by rate of growth and health.

Vista – A type of landscape characteristic that describes a controlled prospect of a discrete, linear range of vision, which is deliberately contrived.

Watershed – The geographic area within which water drains into a particular river, stream, or body of water. A watershed includes both the land and the body of water into which the water drains.

Woodlot – The forested portion of a private property upon which small-scale forestry operations are carried out (BC Ministry of Forestry 2001).

Woody debris, coarse – Any piece(s) of dead woody material (e.g. boles, limbs, large root masses) on the ground in forest stands or in streams (Helms 1998).

Year, seed – A year in which a given species produces (over a considerable area) a seed crop greatly in excess of the normal; usually applied to trees of irregular or infrequent seed production.

Yield – Estimate in forest mensuration of the amount of wood that may be harvested from a particular type of forest stand by species, site, stocking, and management regime at various ages (Helms 1998).